UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO.                        | FILING DATE                          | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.    | CONFIRMATION NO. |
|--|--------------------------------------|----------------------|------------------------|------------------|
| 10/049,821                             | 02/19/2002                           | Yasuyuki Suzuki      | 2002-0206A             | 2849             |
|  | 7590 12/22/200<br>, LIND & PONACK, I | EXAMINER             |                        |                  |
| 2033 K STREET N. W.                    |                                      |                      | PRYOR, ALTON NATHANIEL |                  |
| SUITE 800<br>WASHINGTON, DC 20006-1021 |                                      |                      | ART UNIT               | PAPER NUMBER     |
|  |                                      |                      | 1616                   |                  |
|  |                                      |                      |                        |                  |
|  |                                      |                      | MAIL DATE              | DELIVERY MODE    |
|  |                                      |                      | 12/22/2008             | PAPER            |

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.   | Applicant(s)  |  |  |
|--|---|---|--|--|
|  | 10/049,821  | SUZUKI ET AL.   |  |  |
| Office Action Summary  | Examiner  | Art Unit  |  |  |
|  | ALTON N. PRYOR  | 1616  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | pears on the cover sheet with the   | correspondence address  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D  - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).   | ATE OF THIS COMMUNICATIO<br>136(a). In no event, however, may a reply be tin<br>will apply and will expire SIX (6) MONTHS from<br>e, cause the application to become ABANDONE | N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133). |  |  |
| Status   |   |   |  |  |
| 1) Responsive to communication(s) filed on 16 S  | s action is non-final.<br>ince except for formal matters, pr  |   |  |  |
| Disposition of Claims  |   |   |  |  |
| 4) ☐ Claim(s) 20 and 33 is/are pending in the appliance of the above claim(s) is/are withdra 5) ☐ Claim(s) 20 is/are allowed. 6) ☐ Claim(s) 33 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or contents.  | wn from consideration.  |   |  |  |
| Application Papers   |   |   |  |  |
| 9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Examine   | cepted or b) objected to by the drawing(s) be held in abeyance. Se tion is required if the drawing(s) is ob   | e 37 CFR 1.85(a).<br>ejected to. See 37 CFR 1.121(d).                       |  |  |
| Priority under 35 U.S.C. § 119   |   |   |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |   |   |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date   | 4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:   | ate   |  |  |

#### **DETAILED ACTION**

Applicant's arguments with respect to claim 33 have been considered but are moot in view of the new ground(s) of rejection.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohkawa et al (USPN 6218429) or Ohkawa et al (USPN 6034238) and Grabe et al (CA 2191666; 3/21/96) and Carelli et al. (Enhancement effects in the permeation of Alprazolam through hairless mouse skin, International Journal of Pharmaceutics, 1992, 88 (1-3), 89-97).

Ohkawa et al teach formulations comprising the instant compounds such as (S)-N-[2-(1,6,7,8-tetrahydro-2H-indeno[5,4-b]furan-8-yl)ethyl]acetamide plus a surfactant including nonionic surfactants. Ohkawa teaches that the formulation can be applied in a plaster. Ohkawa teaches that the compound is administered for the treatment of sleep-awake rhythm disorders. See USPN '429 abstract, column 103 line 38 – column 104 line 5, column 104 line 65 – column 105 line 5. See USPN '239 abstract, column 103 line 58 – column 104 line 25, column 105 lines 17-24. Ohkawa does not teach the invention comprising the instant nonionic surfactant(permeation enhancer) – lauric diethanolamine, penetration enhancer – polyethylene glycol (PEG) and isopropyl

Art Unit: 1616

myristate plus stabilizer – silicon dioxide . However, Grabe et al teach that PEG and isopropyl myristate are penetration enhancers and silicon dioxide is a stabilizer used in transdermal drug devices to aid in the penetration and stability of the drug (page 1 lines 5-11, page 8 line 33 – page 9 line 14, page 12 lines 1-3) . It would have been obvious to modify the invention taught by Ohkawa to include PEG, isopropyl myristate and silicon dioxide. One would have been motivated to do this in order to facilitate the delivery of the drug from the transdermal device/paste and to enhance the stability of the drug in the transdermal device/paste. The combination of Ohkawa and Grabe et al do not result in a transdermal device/paste comprising lauric diethanolamine. However, Carelli et al. teach that lauric diethanolamide functions as a skin permeation enhancer. It would have been obvious modify the invention of Ohkawa – Grabe et al. to include lauric diethanolamine. One would have been motivated to do this in order to enhance the permeation of the drug through the skin.

#### Claim Objection / Allowable Subject Matter

Claim 20 is allowable. Applicants provide unexpected results for an invention comprising (S)-N-[2-(1,6,7,8-tetrahydro-2H-indeno[5,4-b]furan-8-yl)ethyl]acetamide plus plus isopropyl myristate, PEG, and lauric diethanolamide.

## Telephonic Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alton N. Pryor whose telephone number is 571-272-0621. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

Application/Control Number: 10/049,821 Page 4

Art Unit: 1616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alton N. Pryor/ Primary Examiner, Art Unit 1616